

DETAILED ACTION

1. This office action is in response to the amendment received on November 2, 2007. Claims 1-6 remain pending in the application.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on September 25, 2007 is noted. The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are **Finally** rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh et al. (6881133) or Saitoh (6932685) in view of Katsumi (cited by applicant). Saitoh et al. and Saitoh clearly discloses the structural elements as claimed by the applicant, which includes a vertical duplex-head surface comprising, a work holding portion (10) including a first reference plane (31) coaxial with a self-rotating shaft (O2) and a second reference plane (32) perpendicular to the self-rotating shaft, the apparatus further includes upper and lower grindstones (2 and 3) and a clamping device (12) having a steel ball (23), but lacks, a method for dressing the above mentioned grindstones with a dressing tool having dressing wheel with parallel upper and lower grinding surfaces, a cylindrical member with a flange portion arranged to concentrically

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receive the dressing wheel, and an annular retaining disc arranged to cooperate with the cylindrical member to fix the dressing wheel between the cylindrical member and the retaining disc, the cylindrical member being provided with a fitting portion having an outer diameter corresponding to an inner diameter of the circumferential surface of the first reference plane so as to fit in the first reference plane, and an abutment surface perpendicular to the outer surface of the fitting portion to abut against the second reference plane. However, Katsumi teaches of a method for dressing two vertically opposing grindstones with a dressing tool that can be formed with the same configuration as the work (see below), meaning that the shape of the dresser can be the same as the work.

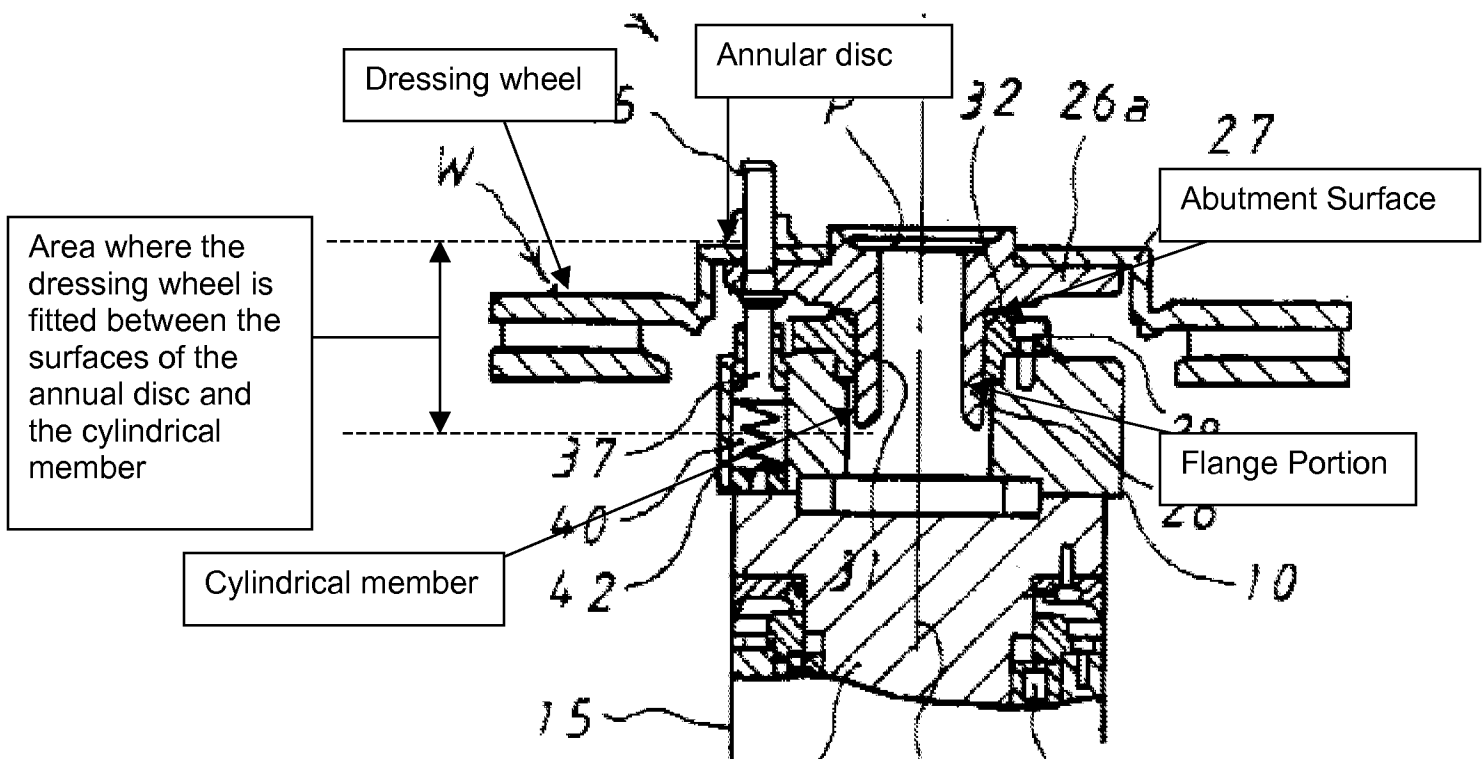
(57)Abstract:

PURPOSE: To make it possible to easily and quickly dress a grinding wheel by using a dresser which has faces corresponding to the faces to be ground of a work itself or a dresser body exactly following the configuration of the work, and on the faces of which supergrits are electro-deposited.

CONSTITUTION: A dresser 10 is made by applying supergrits 11 to the faces 2A to be ground of a work or a connecting rod 2 by electro-deposition. When a pair of disc grinders 3 for grinding both faces of the connecting rod 2 are loaded, the dresser 10 is fixed by a work carrier mechanism in the same manner as the connecting rod 2 is ground, and passed through between a pair of rotating disc grinders 3 under the same condition as the usual connecting rod 2 is ground. Thus, each grit-layer 11 of the dresser 10 grinds the grit-layers of each disc grinders to eliminate the loading, and the grindability of the disc grinders 3 is recovered.

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The work used in Saitoh et al. and Saitoh is a brake disc plate (W) having the same shape as the dressing tool being claimed by the applicant and since Katsumi teaches that a dressing tool can be formed with the same shape as the work, the brake disc plate, of Saitoh et al. or Saitoh, could be formed into a dressing tool having a dressing wheel (see figure below) with parallel upper and lower grinding surfaces, a cylindrical member with a flange portion arranged to concentrically receive the dressing wheel, and an annular retaining disc arranged to cooperate with the cylindrical member to fix the dressing wheel between the cylindrical member and the retaining disc, the cylindrical member being provided with a fitting portion having an outer diameter corresponding to an inner diameter of the circumferential surface of the first reference plane so as to fit in the first reference plane, and an abutment surface perpendicular to the outer surface of the fitting portion to abut against the second reference plane.



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the vertical duplex-head surface, of Saitoh et al. or Saitoh, with a method of dressing grindstones with a dressing tool having a **dressing wheel with parallel upper and lower grinding surfaces**, a **cylindrical member with a flange portion arranged to concentrically receive the dressing wheel**, and an **annular retaining disc arranged to cooperate with the cylindrical member to fix the dressing wheel between the cylindrical member and the retaining disc**, the **cylindrical member being provided with a fitting portion having an outer diameter corresponding to an inner diameter of the circumferential surface of the first reference plane so as to fit in the first reference plane**, and an **abutment surface perpendicular to the outer surface of the fitting portion to abut against the second**

reference plane, as taught by Katsumi, in order quickly and easily dress grinding wheels thereby improving the finished work surface.

Response to Arguments

5. Applicant's arguments filed November 2, 2007 have been fully considered but they are not persuasive.

6. Applicant contends that Katsumi teaches of a connecting rod not having the specific shape of the claimed dressing tool.

a. The examiner respectfully disagrees with this statement. While Katsumi does show a different shaped dressing tool, the reference was used for its teaching for forming a dressing tool into the same shape as the work. Since, the work in either Saitoh reference has the same structure as the dressing tool as being claimed, when either Saitoh reference is taken in view of Katsumi, one of ordinary skill in the art would understand that a dressing tool could be formed into the same shape of the work (brake disc) therefore the examiner believes the rejection is proper and thus maintained.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT SCRUGGS whose telephone number is (571)272-8682. The examiner can normally be reached on Monday-Friday, 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RS

/Joseph J. Hail, III/
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